

# Thermo Scientific Model 410i Carbon Dioxide Gas Analyzer with Oxygen Sensor

Non-dispersive infrared analyzer with paramagnetic sensor technology

The Thermo Scientific™ Model 410i Carbon Dioxide Gas Analyzer with Oxygen Sensor measures oxygen concentrations. The advanced non-dispersive infrared technology, utilized in the standard Model 410i, combined with the paramagnetic oxygen sensor, offers unsurpassed detection specificity and long term stability.

- Paramagnetic sensor technology
- Adjustable ranges
- Real-time correction of CO<sub>2</sub> readings
- User selectable O<sub>2</sub> correction concentrations



The paramagnetic oxygen sensor gives the source measurement of CO<sub>2</sub> extended capabilities including the ability to read and report oxygen concentrations within the sample stream up to 100%.

Additionally, programming allows the user to correct the CO<sub>2</sub> reading for the amount of oxygen in the sample.

Selectable O<sub>2</sub> concentrations can be used as the correction factor. (i.e. CO<sub>2</sub> corrected to 6% O<sub>2</sub> or any other percentage.)

Developed on the renowned iSeries platform the Thermo Scientific Model 410i gas analyzer with oxygen offers limited maintenance and exceptional ease of use.

iSeries features also include:

- Rack mountability
- Ethernet port & connectivity options
- Flash memory for increased data storage
- Easily programmable short-cut keys
- Large interface screen



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Measurement Range	User selectable to 100% O <sub>2</sub>
Repeatability	+/- 0.1% O <sub>2</sub>
Zero Drift (24 hour)	+/- 0.1% O <sub>2</sub>
Response Time	< 2.5 seconds to 90% FS
Linearity	+/- 0.1% O <sub>2</sub>
Operating Temperature	41°F - 104°F (5°C - 40°C)
Temperature Coefficient	Within a range of 32°F to 149°F (0°C to +65°C)
Zero	< +/- 0.03% O <sub>2</sub> / °C
Span	< +/- 0.05% O <sub>2</sub> of reading / °C
Outputs	Selectable voltage, RS232/RS485, TCP/IP, 10 status relays and power fail indication 0-20 or 4-20 mA isolated current output
Inputs	16 digital inputs, 8 0-10Vdc analog inputs
Physical Dimensions	16.75" (42.5cm) W x 8.62" (21.9cm) H x 23" (58.4cm) D, 55lbs (25kg)

### Ordering Information

#### Model 410i Carbon Dioxide Gas Analyzer with Oxygen Sensor

Choose from the following configurations/options to customize your own Model 410i analyzer

##### 1. Voltage options:

A = 120 VAC 50/60 Hz  
B = 220 VAC 50/60 Hz  
J = 100 VAC 50/60 Hz

##### 2. Internal zero / span:

N = No zero / span valve  
Z = Internal zero / span valves  
S = No zero / span valve with O<sub>2</sub> sensor  
R = Internal zero / span valves with O<sub>2</sub> sensor

##### 3. Filter Wheel Purge:

P = Filter wheel purge setup (Standard)

##### 4. Sample Gas Concentration Range:

D = 0 -10,000 ppm Concentration Range (Dilutive)  
E = 0 - 25% Concentration Range (Extractive)

##### 5. Optional I/O:

A = No optional I/O (standard)  
C = 0 - 20, 4-20mA Current output, 6 Channels  
O = 10v Analog Input, 8 Channel

##### 6. Mounting Hardware:

A = Bench mounting (standard)  
B = Ears & handles, EIA  
C = Ears & handles, Retrofit

**Your Order Code: 410i - \_ \_ \_ \_ \_**

To maintain optimal product performance, you need immediate access to experts worldwide, as well as priority status when your air quality equipment needs repair or replacement. We offer comprehensive, flexible support solutions for all phases of the product life cycle. Through predictable, fixed-cost pricing, our services help protect the return on investment and total cost of ownership of your Thermo Scientific products.

For more information, visit our website at [thermoscientific.com/air](http://thermoscientific.com/air)

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This product is manufactured in a plant whose quality management system is ISO 9001 certified.

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